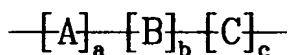


LISTING OF THE CLAIMS

1. (Previously Presented) A photo-alignment material having a photo-reactive ethenyl group in a polymer main chain, wherein the polymer is according to chemical formula 1:
{chemical formula 1}

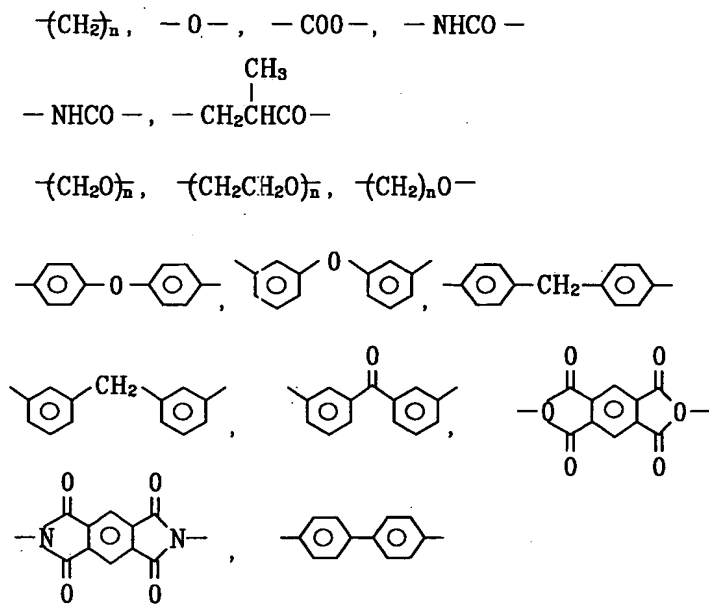


wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \leq 1$, $0 \leq b < 1$, and $0 \leq c < 1$, and wherein component A is a monomer including the photo-reactive ethenyl group selected from groups designated in chemical formula 2, substituted-structure groups of chemical formula 2 having a halogen, a cyano, a nitro, an amino group, and other substituted-structure groups with an alkyl, a haloalkyl, and a cyanoalkyl group having 1 to 10 carbons, or an aryl, an alkyl, an aryl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

Chemical structures of various monomers and polymers, including alkenes, cycloalkenes, aromatic compounds, and heterocycles, are shown. The structures are arranged in rows and columns, separated by commas. Some structures include substituents like methyl groups (CH₃) and functional groups like carbonyl (C=O) and amine (NH). A note indicates that X can be O, C, NH, or S.

2. (Original) The photo-alignment material of claim 1, wherein components B and C are selected independently from groups shown in chemical formula 3, substituted-structure groups of chemical formula 3 with a halogen, a cyano, a nitro, an amino group, other substituted-structure groups with carbonated groups of which carbon number n lies between 1 and 10 such as an alkyl, a haloalkyl, and a cyanoalkyl, and other carbonated groups of which carbon number lies between 3 and 8 such as an alkylaryl, a haloaryl, a haloalkylaryl, a nitroaryl, and a cyanoaryl;

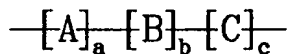
{Chemical Formula 3}



Claims 3-32 (Canceled).

33. (Previously Presented) A photo-alignment material having a photo-reactive ethenyl group in a polymer main chain, wherein the polymer is according to formula 1:

{formula 1}

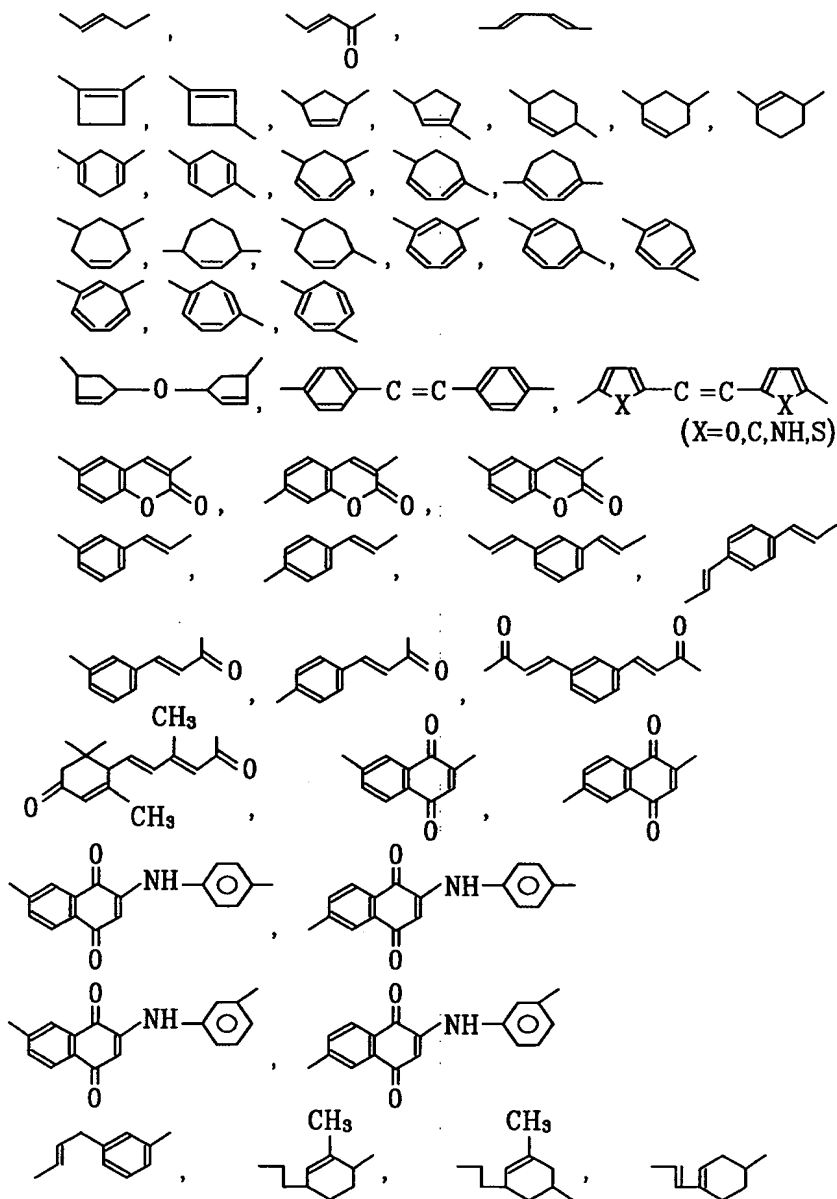


wherein subscripts a, b, and c denote a component ratio of respective monomers, wherein $0 < a \leq 1$, $0 \leq b < 1$, and $0 \leq c < 1$;

wherein component A is a monomer having the photo-reactive ethenyl group of formula 2, and the monomer having a photo-reactive ethenyl group of formula 2 can be substituted with at least one selected from the group consisting of a halogen, a cyano, a nitro, an amino group, an alkyl, a haloalkyl, a cyanoalkyl group having 1 to 10 carbons, an aryl, an alkyl, a haloaryl, a haloalkyl aryl, a nitroaryl, and a cyanoaryl group having 3 to 8 carbons;

wherein formula 2 is selected from a group consisting of:

{Formula 2}

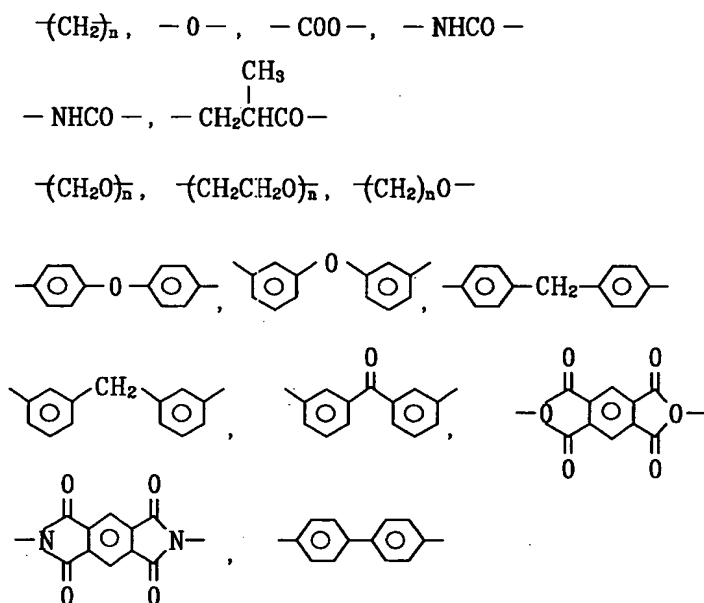


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amino group, alkyl, a haloalkyl, a cyanoalkyl, alkylaryl, a haloaryl, a haloalkylaryl a nitroaryl, a cyanoaryl;

wherein formula 3 is selected from a group consisting of:

{Formula 3}



Claim 34 (Canceled).